

Patent Abstracts of Japan

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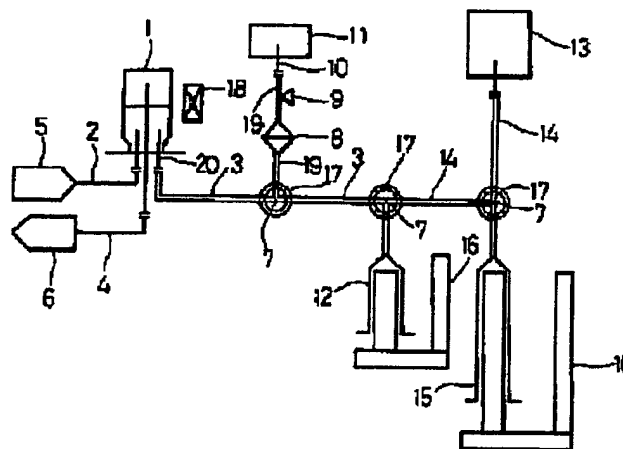
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APPLICANT : NKK CORP;

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TITLE : INTRAVENOUS INJECTION SOLUTION
PREPARING AND SUPPLYING DEVICE



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ABSTRACT : PURPOSE: To remarkably reduce the exposure dose of a measurer by sucking a fixed amount of a physiological saline solution containing $H_2^{15}O$ in a syringe and using a device which discharges and injects the solution into the body of a patient after housing the device in a radiation shielding container.

CONSTITUTION: After sticking an injection needle into a vial 1, a physiological saline solution contained in a tank 13 is sucked into a disposable syringe 12 and supplied to the vial 1. The physiological saline solution is also sucked into another disposable syringe 15 and the saline solution is supplied to a patient line 19. Under such a condition, the door of a lead safe housing this device is closed and an injection needle 10 is stuck into the body of a patient. Then a gas containing $H_2^{15}O$ is made to flow to the vial 1 from a supply 5 and bubbled in the vial 1, with the exhaust gas being collected in an exhaust gas tank 6. When a radiation detector 15 indicates a prescribed value, sending of the gas containing $H_2^{15}O$ is stopped and, after sucking the physiological saline solution containing $H_2^{15}O$ into the syringe 12 from the vial 1, the saline solution is injected into the body of the patient through the line 19 by switching a three-way stop cock 7. At the time of injecting the saline solution, the measurer performs his work at a position about 5m away from the lead safe having a lead wall thickness of about 5cm.

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